BANGALORE METRO RAIL CORPORATION LIMITED

Driving Bangalore Ahead

TENDER DOCUMENT

Providing Dynamic Illumination of Namma Metro Pillars

TENDER No: BMRCL/O&M/E&M/2025-26/01

VOLUME 02
FINANCIAL PACKAGE

May-2025

BANGALORE METRO RAIL CORPORATION LIMITED
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VOLUME 2: FINANCIAL PACKAGE
BILL OF QUANTITIES (PRICING DOCUMENT)

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BILL OF QUANTITY

Tender No. BMRCL/O&M/E&M/2025-26/01

Name of Work: Providing Dynamic Illumination of Namma Metro Pillars

Bill of Quantity					
Sl No	**Description of Items**	**Unit**	**Qty**	**Rate (in Rs.)**	**Total (in Rs.)**
1	SITC of high quality long through multicolor wash light, Protection Rating: IP66, complying to BIS standard "IS 10322 (Part 5/Sec 1): 2012" and having CE certification against standard "Low Voltage Directive & Protective Equipment - EN 60598-1:2015", and "Electromagnetic Compatibility Directive - EN 61547: 2009", Mounting Structure: Adjustable wall mount yoke arrangements for fixing the lights. **Power consumption: 100W**, CCT: RGBW, (as per the design approval) Optics: PMMA with holder, Beam Angle: 25º/45º/60º, Control: DmX512 Channel: 4 CH, Body: Die casted / extruded aluminum with embossed manufacturer logo, Separate compartment for keeping the decoder/driver in the housing, Hot spot and light distribution: Optics Designed to minimize hot spots & fringing in color mixing applications. Power Input: AC 110-230V, Surge Protection: Inbuilt surge protection 2KV-4KV (Additional if required will be added as per the requirement), Toughened transparent glass having the IK protection up to IK05, Painting: Chemical 3/7 tank processed treatment before the powder coat black/ash/approved color coat. Fixture shall be suitable to operate in a temperature range of 0°C to 50°C, LED life should be at least 50,000 burning hours at L70 at 25 degree centigrade. Luminaire is inclusive of Integral male/female waterproof connectors with structures in pre wired conditions as per IS standard. PCB thickness must be 1.6mm, 35micron Copper, 2W TC with Black or White masking, Copper /OSP finish. LM79, IK05, IP66, HV Certificates from NABL Accredited laboratory. LED Makes should be CREE, Lumil LED, Osram, Seoul, Nichia or equivalent with the engineer or 3rd party testing laboratory approval. Power cable & DMX cable Loop In/Out having the length >400mm.	Nos	640		
2	SITC of PVC insulated multi core electrical un armoured flexible 3C x 1.5Sq mm power cable having less electrical losses. This PVC insulated and round sheathed wire features a bright multi strands copper conductors and it supports voltage grade up to 1100V confirming to IS-1554 part 1 Polycab/Finolex/SBEE/KEA	Mtr	3200		
3	SITC of PVC insulated multi core electrical un armoured flexible 3C x 2.5Sq mm power cable having less electrical losses. This PVC insulated and round sheathed wire features a bright multi strands copper conductors and it supports voltage grade up to 1100V.	Mtr	800		
4	SITC of 5 core DMX cable comprises twisted pairs with shield support for carrying of data. DMX512 cable is used for connecting all light consoles that use DMX 512 standard data transmission.	Mtr	11200		

5	SITC of IP65 5 pin XLR Male and Female connectors having 5 pole cable connector, Male/Female connector with improved latch, cage type contacts, "solder stop" for easy soldering, and additional ground contact for best contact integrity between chassis and cable connector. More durable housing for maximum reliability.	Nos	160		
6	SITC of sub Power Distribution Board made up of MS Sheet metal fabricated housing black powder coated and ivory connectors for the internal terminations and external outgoing connecting points, fiber / brass glands of suitable size fitted MCB control for outgoing circuits. - 2 Nos of 16A TPN Outgoing MCB's. - 1No of 32A TPN Incoming MCB.	Nos	16		
7	SITC of IP driver box made up of UPVC/PVC fabricated housing and ivory connectors for the internal terminations and external outgoing connecting points.(For diver box)	Nos	224		
8	SITC of DMX isolator or splitter provides Isolated optical DMX splitter provides 8 outputs from a 1 input and Input voltage: AC 110 to 220 V, 50 Hz, Product features: Group 1 & group 8 DMX signal change.	Nos	16		
9	SITC of DMX signal amplifier , Power Consumption: 2W, Input Power: 120 240 V AC Input Built in Power Supply, Indicator Lights for DMX In Out and Power, 1000v DMX Isolation, 20 60C Temp Rating, 3 Pin XLR andRJ45 In/Out Ports DMX IN-(3 Pin XLR), DMX OUT-(3 Pin XLR), DMXIN (RJ 45), DMX OUT-(RJ 45)	Nos	32		
10	SITC of Din Rail Mount DMX controller can be used to control a wide variety of different DMX systems- from RGB/RGBW to more advanced moving and color mixing luminaires, DMX audio players and fountains. The controller comes with a variety of features, iPhone/iPad/Android remote control, WiFi facilities, dry contact port triggering and flash memory. USB connection • 2048 DMX channels universe in live mode (computer) • 8 dry contact trigger ports via HE10 connector • standalone mode with 5 area and 90+ scenes, Mac OSx 10.6/10.7/10.8 - Windows XP/VISTA/SEVEN/8 32/64 bits and USB 2.0, XLR3, mini USB, 1 HE10, Power From 5V to 5.5V DC (AC/DC adapter in option).	Nos	16		
11	SITC of Programmes pertaining to permanent decorative illumination including cost and conveyance of all materials, labour and other incidental charges necessary for the successful completion of work etc., complete as per standard specification of work and as directed by the Engineer in charge of the work.	Job	16		
12	SITC of PVC insulated multi core electrical armored flexible 4C x 4 Sq mm power cable having less electrical losses. This PVC insulated and round sheathed wire features a bright multi strands aluminum conductors and it supports voltage grade up to 1100V. (As per actuals depending upon the site condition)	Mtr	7200		
13	SITC of DMX 512 Unique program loader with programming possibility of multiple lights together in a loop (RA FAÇADE DECORATIVE -19- 15-2023/24)	Nos	1		
14	Supplying and erecting HMS PVC conduit FRLS grade 32 mm dia. with PVC accessories on wall / ceiling as per specification No: WG- MA/CON (1-2-5) (2022-23)	Mtr	320		
15	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 10 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL (7-1-28) (2022-23)	Mtr	2400		

16	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 50 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.(7-6-9) (2022-23)	Mtr	5600		
17	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP (9-1-1) (2022-23)	Nos	32		
18	SITC of GI Cage for light protection, GI Cage made of mesh with back openable door and suitable hinges, light fixing provision with bolting option, base concrete foundation.	Nos	640		
19	25mm SS flexible pipe with all required accessories.	Mtr	1600		
A: Total (in Rs.) (Excluding GST):					
20	**Contingency @15% of (A):**				
Grand Total (in Rs.) (Excluding GST):					

The **Tender Total** comprises:

Indian Rupees: …… (in figures)

…… (in words)

Note:

1. *The Tenderer shall fill in and complete the Bill of Quantities (Financial Package) online through Karnataka Public Procurement Portal (eProcurement portal) only and* ***no hardcopy of commercials should be attached or disclosed elsewhere*** *Unit rates and prices shall be quoted by the Tenderer in Indian Rupees only*.
2. The rates and prices quoted for each item shall be inclusive of all applicable taxes and duties **excluding CGST & SGST**. BMRCL shall pay the applicable CGST & SGST as invoiced by the contractor to BMRCL. The quoted price also includes insurance, labour cess, transportation up to destination, handling, installation, royalties & any other charges leviable and payable by the Contractor to the authorities and including Tax to be deducted at source.
3. Income tax deduction:

   Income tax (TDS) shall be deducted as per the prevailing rate and remitted to the Income Tax authorities and Form 16 shall be furnished by BMRCL in proof of remittance to IT Department. For availing lower deduction of Income Tax, necessary certificate for each financial year issued by the Income Tax Authority shall be furnished by the Contractor, failing which IT at the maximum rate will be deducted.
4. The Contractor shall maintain complete records in respect of payments made by them towards IGST/GST payable to various authorities (except Income Tax or Corporate Tax). The detailed records shall however remain open for inspection by the Employer/ Engineer at any time and copies of the records shall be furnished as required by the Employer.
5. The Contractor shall be solely responsible for discharging all the statutory payments to the authorities concerned including custom duty, IGST and GST.
6. The Price quoted by the Tenderer shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account, unless provided otherwise in the General Conditions of Contract/Special Conditions of contract.
7. Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities (refer: ITT Clause 11.2 and GCC Clause 44.2).
8. Where there is a discrepancy between the rate in figures and words, the lower of the two will govern. [ITT Clause 24.1(a)]
9. Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern [ITT Clause 24.1(b)]
10. BMRCL will consider the above prices for evaluation of Tender only.

SIGNATURE OF THE TENDERER